

---

U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

---

Mark Schaefer, Interim Director

Reston, VA 20192

---

For information, contact:

Gerald R. Smith, Lead Specialist

Telephone: (703) 648-4983, Fax: (703) 648-7757

E-mail: [grsmith@usgs.gov](mailto:grsmith@usgs.gov)

Richelle Gipe (Data), (703) 648-7961

MINES FaxBack: (703) 648-4999

Internet: <http://minerals.er.usgs.gov/minerals>

## LEAD IN AUGUST 1997

Mine production, based upon the net quantity of lead recovered in the smelting of concentrate, increased by about 1% in August, but was down by about 1% compared with production in August 1996. Primary and secondary refinery production increased by 8% and 9%, respectively, in August, and were up by about 13% and 6%, respectively, compared with production in August 1996. Reported consumption increased by 3% in August.

According to *Platt's Metals Week* published quotations, the average North American producer price and London Metal Exchange (LME) cash price declined by 0.5% and 4.1%, respectively, in August, losing slightly more than they had gained in July.

National Defense Stockpile cash disposal (sale) of lead in August 1997 was 3,852 metric tons (4,246 short tons). Sale of lead to date in fiscal year 1997 (October 1996 through August 1997) was 17,220 metric tons (18,982 short tons).

The Doe Run Co., St. Louis, MO, confirmed its intention to purchase a 100% interest in the La Oroya smelting and refining complex owned by Peru's Empresa Minera del Centro del Perú (CENTROMIN). Doe Run was given the opportunity to purchase the complex after Mexico's Grupo Industrias Peñoles, the highest bidder at the auction of La Oroya in April, decided to withdraw its offer in mid-July. According to CENTROMIN, Doe Run has offered to purchase a 51% stake in the complex and to invest additional capital in the complex to acquire the remaining 49%. Doe Run also has agreed to "respect fully" the right of the workers to buy up to 10% of the complex. Under its new ownership, the complex would be renamed Metal Oroya. A few months prior to the sale of the complex, CENTROMIN had been granted approval by Peru's Energy and Mining Ministry to conduct a 10-year environmental program at La Oroya, aimed at enhancement of environmental conditions through installation of new technology. The program was begun earlier this year and the Ministry will continue to be responsible for this program upon completion of the sale. Doe Run would

assume environmental liability for post-sale production. The La Oroya complex was operated near its capacity in 1995, producing about 90,000 tons of lead, 68,000 tons of zinc, 66,000 tons of copper, and significant quantities of gold and silver (Metal Bulletin, 1997).

Australian miner Western Metals Ltd., which recently acquired total interest in the Blendeveale (renamed Pillara) zinc-lead mining project, in the Kimberley region, Lennard Shelf area of Western Australia, gave its final approval in early August to the development of the underground mine. Construction was to begin in August, with full commissioning of the mine expected in about 11 months. Production at Pillara is projected to be about 200,000 tons of concentrate annually, yielding 102,000 tons of zinc and 28,000 tons of lead. Pillara has reserves of 10.6 million tons of ore at a grade of 8.1% zinc and 2.5% lead. Concentrates from Pillara will be trucked to a new port facility to be constructed at Derby, about 260 kilometers from the mine. This new port facility will have the capability to move up to 400,000 tons of concentrate annually, allowing it also to handle concentrates from other Western Metal operations in the Lennard Shelf area (Mining Journal, 1997).

Anvil Range Mining Corp., Toronto, Canada, has secured a loan from Cominco Ltd., Vancouver, Canada, to initiate a 3-month stripping operation at its Grum orebody, part of the Faro lead-zinc mining complex, Yukon, Canada. Anvil also is working to acquire additional funding to make modifications to the mill at Faro and restart it. According to Anvil, assuming the latter financing objectives are met, full scale milling will be resumed after the stripping program is completed. Operations at the Faro mine and mill were temporarily suspended at the end of 1996. The mill has a capacity of 40,000 tons per month of lead and zinc concentrates, yielding 180,000 tons of zinc in concentrate and 120,000 tons of lead in concentrate annually (Platt's Metals Week, 1997).

Cominco Ltd. announced in mid-August that tender calls would be issued on behalf of the Să Dena Hes joint venture to

facilitate a possible reopening of the zinc-lead mine in Yukon, Canada. The actual reopening of the mine was dependent on conditions in the zinc market and this situation was currently under review. The earliest possible start-up of the mine was expected to be in the second quarter of 1998. Sä Dena Hes is owned jointly by Cominco (25%), Teck Corporation (25%), and Korea Zinc Co., Ltd. (50%). Cominco serves as the operator of the mine in this joint venture (Cominco News, 1997). The mine was purchased by this joint venture group in late 1993 from Canada's Curragh Inc. and Hillsborough Resources, which had started production at the mine in August 1991. During the following 14-month period, 807,000 tons of zinc and lead concentrates were produced containing 374,000 tons of zinc and 290,000 tons of lead. Measured and indicated reserves at Sä

Dena Hes are 1.4 million tons grading 10.2% zinc, and 2.5% lead (The Northern Miner, 1997).

### References Cited

- Cominco News, 1997, Sä Dena Hes Mine: Vancouver, Canada, Cominco, Ltd., August 13, 1p.
- Metal Bulletin, 1997, Doe Run to acquire 100% of La Oroya: Metal Bulletin, no. 8202, August 11, p. 6.
- Mining Journal, 1997, Pillara zinc to go ahead: Mining Journal, v. 329, no. 8440, August 1, p. 1.
- Platt's Metals Week, 1997, Anvil Range gets zinc mine loan: Platt's Metals Week, vol. 68, no. 32, August 11, p. 14.
- The Northern Miner, 1997, Cominco ponders restarting mine: The Northern Miner, vol. 83, no. 26, August 25, p. 11.

TABLE 1  
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1996		1997		
	Year total	Jan. - Aug.	July	Aug.	Jan. - Aug.
Production:					
Mine (recoverable)	426,000	286,000 r/	33,400 r/	33,700	281,000
Primary refinery 2/	326,000	224,000	25,900	28,000	233,000
Secondary refinery:					
Reported by smelters/refineries	1,080,000	635,000	84,100	91,900	690,000
Estimated	--	9,650	1,350	1,590	11,300
Recovered from copper-base scrap e/	16,400	10,000	1,250	1,250	10,000
Total secondary	1,100,000	655,000	86,700	94,700	711,000
Stocks, end of period:					
Primary refineries 2/	XX	XX	6,530	7,790	XX
Secondary smelters and consumers	XX	XX	58,800 r/	59,100	XX
Imports for consumption:					
Ore and concentrates (lead content)	6,570	3,350	1,810	NA	7,780 3/
Refined metal	268,000	164,000	23,700	NA	146,000 3/
Consumption:					
Reported	1,530,000	543,000	99,600	103,000	832,000
Undistributed e/	--	333,000	16,200	16,700	135,000
Total	1,530,000	876,000	116,000	119,000	967,000
Exports (lead content):					
Ore and concentrates	59,700	35,900	11,700	NA	19,000 3/
Materials excluding scrap	102,000	72,600	4,230	NA	57,700 3/
Ash and residues	19,400	10,400	1,970	NA	12,100 3/
TEL/TML preparations, based on lead compounds	3,200	1,990	208	NA	1,500 3/
Exports (gross weight): Scrap	85,300 4/	57,900 r/ 4/	7,740	NA	47,800 3/
Platt's Metals Week North American producer price (cents per pound)	48.83	48.76	46.09	45.84	46.87

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Data from American Bureau of Metal Statistics, Inc. (ABMS).

3/ Includes data for January - July only; August data not available at time of publication.

4/ Includes only non-battery scrap data.

TABLE 2  
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1996:				
August	49.59	815.23	525.99	1.549882
Average Jan. - Aug.	48.76	793.05	517.26	1.533444
Year average	48.83	773.87	495.56	1.561616
1997:				
May	45.94	618.23	378.78	1.632167
June	45.90	614.49	373.61	1.644743
July	46.09	633.91	379.73	1.669382
August	45.84	607.74	379.00	1.603524
Average Jan. - Aug.	46.87	645.27	394.93	1.634105

Source: Platt's Metals Week.

TABLE 3  
MINE PRODUCTION OF RECOVERABLE LEAD IN THE UNITED STATES 1/

(Metric tons)

	1996		1997		
	Year total	Jan. - Aug. r/	July	Aug.	Jan. - Aug.
Missouri 2/	397,000	264,000	32,000 r/	32,900	271,000
Montana	7,970	5,270	864	279	W
Other States 3/	21,200	16,600	525 r/	447	10,200
Total	426,000	286,000	33,400 r/	33,700	281,000
Daily average 4/	1,160	1,170	1,080 r/	1,090	1,160

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Alaska and Missouri combined to avoid disclosing company proprietary data.

3/ Includes Colorado, Idaho, Illinois, New York and Tennessee.

4/ Based on number of days in period without adjustment for Sundays or holidays.

TABLE 4  
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN AUGUST 1997 1/

(Metric tons, gross weight)

Item	Stocks July 31, 1997	Net receipts	Consumption	Stocks Aug. 31, 1997
Battery-lead	29,800 r/	86,400	85,700	30,500
Soft lead	W	W	W	W
Drosses and residues	2,490 r/	3,600	3,770	2,320
Other 2/	2,420 r/	2,060	2,040	2,440
Total	34,700 r/	92,000	91,500	35,200
Percent change from preceding month	--	+2.1	+3.8	+1.5

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 5  
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE  
SCRAP IN AUGUST 1997 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	52,000	--	--
Remelt lead	W	W	W
Antimonial lead	35,700	13	W
Other 2/	W	W	--
Total lead-base	91,900	34	338

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6  
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	1996		1997		
	Jan.-Dec. 2/	Jan.- Aug.	July	Aug.	Jan.- Aug.
<b>Metal products:</b>					
Ammunition-shot and bullets	52,100	29,000	3,060	4,840	35,000
Brass and bronze-billet and ingots	5,460 r/	4,080	501	508	4,150
Cable covering-power and communication and cabling lead-building construction	W	4,370	592	238	4,880
Casting metals	18,800 r/	951	398	453	3,510
Pipes, traps, and other extruded products	(3/)	(3/)	(3/)	(3/)	(3/)
Sheet lead	21,200	6,500	1,070	1,250	11,300
Solder	9,020	3,940	528	481	4,760
Storage batteries, including oxides	1,340,000	481,000	92,800	94,200	763,000
Terne metal, type metal, and other metal products 4/	9,560	4,930	196	242	1,600
Total metal products	1,460,000	534,000	99,100	102,000	828,000
Other oxides	(5/)	(5/)	(5/)	(5/)	(5/)
Miscellaneous uses	70,900 r/	8,800	460	425	3,990
Total reported	1,530,000	543,000	99,600	103,000	832,000
Undistributed consumption e/	--	333,000	16,200	16,700	135,000
Grand total	1,530,000	876,000	116,000	119,000	967,000

e/ Estimated. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total metal products."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes annual data.

3/ Withheld to avoid disclosing company proprietary data; included with "Sheet lead."

4/ Includes lead consumed in bearing metals, foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

5/ Withheld to avoid disclosing company proprietary data; included with "Miscellaneous uses."

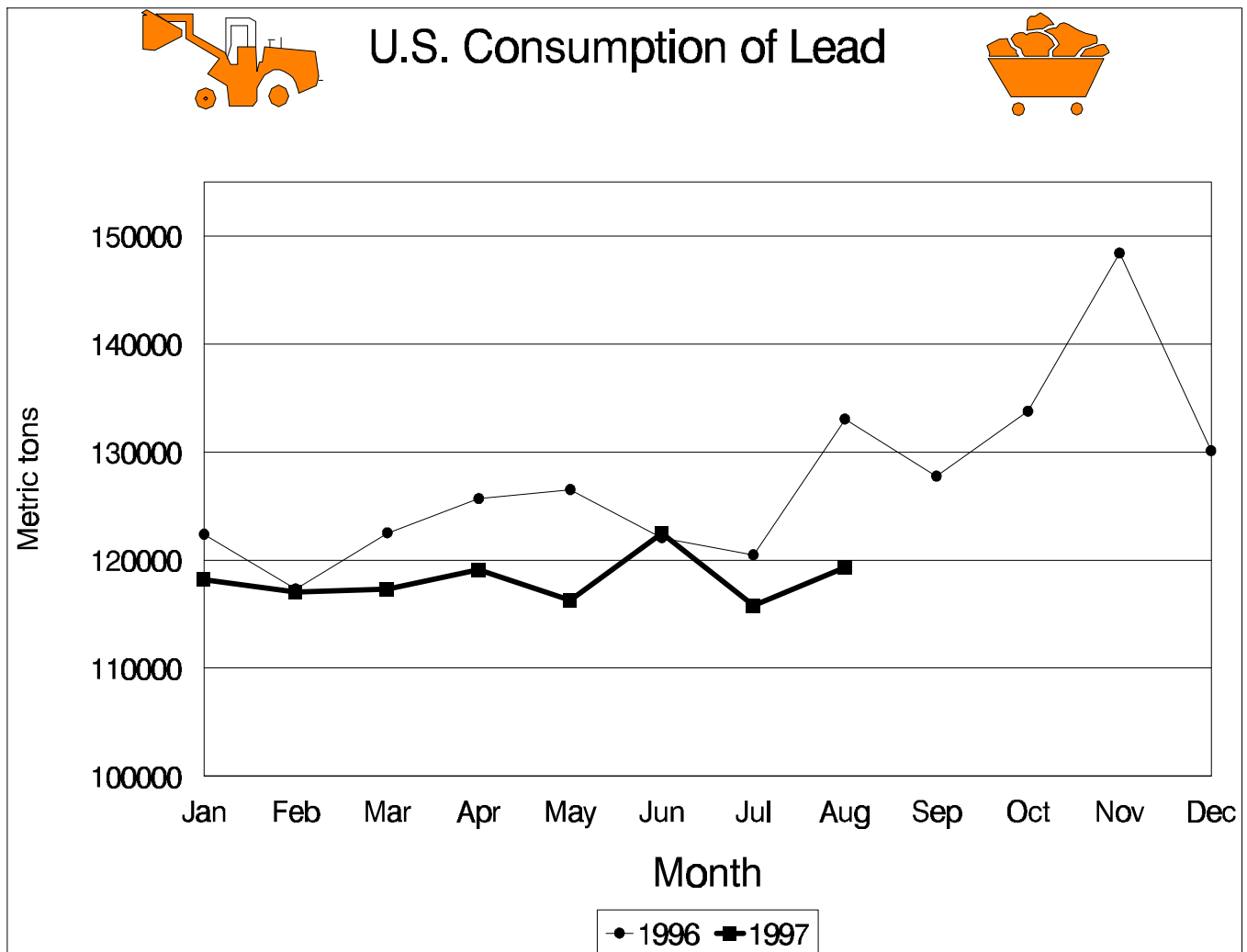


TABLE 7  
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND  
CONSUMPTION OF LEAD IN AUGUST 1997 1/

(Metric tons, lead content)

Type of material	Stocks July 31, 1997	Net receipts	Consumption	Stocks Aug. 31, 1997
Soft lead	24,300 r/	54,700	54,500	24,500
Antimonial lead	28,700 r/	30,000	30,300	28,400
Lead alloys	W	17,500	17,400	W
Copper-base scrap	W	412	412	W
Total	58,800 r/	103,000	103,000	58,800

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 8  
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1996		1997		
	Year total	July	June	July	Jan. - July
Lead content:					
Ore and concentrates	59,700	10,900	374	11,700	19,000
Materials excluding scrap	102,000	6,800	11,200	4,230	57,700
Ash and residues	19,400	2,850	1,570	1,970	12,100
TEL/TML preparations, based on lead compounds	3,200	103	498	208	1,500
Total	184,000	20,600	13,600	18,100	90,300
Gross weight: Scrap	85,300 2/	8,990 2/	7,420	7,740	47,800

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes only non-battery scrap data.

Source: Bureau of the Census.

TABLE 9  
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1996		1997			1996		1997		
	Year total	Jan. - July	June	July	Jan. - July	Year total	Jan. - July	June	July	Jan. - July
Ore, matte, etc.:										
Bolivia	326	282	--	168	613	--	--	--	--	--
Canada	352,000	216,000	706	6	58,900	4,370	2,370	700	--	753
Mexico	2,890	1,440	--	--	558	2,080	625	--	--	558
Peru	13,400	9,930	508	2,370	4,790	--	--	--	1,810	1,810
Other	133	133	16	16	5,120	122	122	16	--	4,660
Total	369,000	228,000	1,230	2,560	70,000	6,570	3,120	716	1,810	7,780
Base bullion:										
Mexico	5	--	--	--	5	5	--	--	--	5
Total	5	--	--	--	5	5	--	--	--	5
Pigs and bars:										
Belgium	11	--	19	--	47	11	--	19	--	47
Canada	192,000	99,200	12,800	16,300	108,000	192,000	99,200	12,800	16,300	108,000
Germany	338	120	14	77	317	338	120	14	77	317
Mexico	56,900	31,100	5,340	6,720	33,300	56,900	31,100	5,340	6,720	33,300
Peru	17,100	11,300	500	500	3,700	17,100	11,300	500	500	3,700
United Arab Emirates	160	109	--	--	42	160	109	--	--	42
United Kingdom	19	--	--	--	--	19	--	--	--	--
Other	846	231	20	11	941	846	231	20	11	941
Total	267,000	142,000	18,700	23,700	146,000	268,000	142,000	18,700	23,700	146,000
Reclaimed scrap, including ash and residues	192	159	48	--	48	192	159	48	48	48
Grand total	636,000	370,000	20,000	26,200	216,000	274,000	145,000	19,400	25,500	154,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.